Docket D.T.E. 04-115

Investigation by the Department of Telecommunications and Energy into its own Motion into the Procurement of Default Service Power Supply for Residential and Small Commercial and Industrial Customers

Initial Comments of the Union of Concerned Scientists, Massachusetts Public Interest Research Group, Massachusetts Energy Consumers Alliance, Clean Water Action, and the Conservation Law Foundation

January 10, 2005

We welcome the opportunity to submit comments to the Department of Telecommunications and Energy ("Department" or "DTE") regarding the procurement of default service power in Massachusetts. These comments are submitted by the following organizations:

A. THE UNION OF CONCERNED SCIENTISTS

The Union of Concerned Scientists ("UCS") is an independent nonprofit alliance of more than 100,000 concerned citizens and scientists working for practical environmental solutions. For more than three decades, UCS has combined rigorous analysis with committed advocacy to reduce the environmental impacts and risks of energy. UCS's energy program focuses on

encouraging the development of clean and renewable energy resources, such as solar, wind, geothermal and biomass energy, and on improving energy efficiency. Participating in the design and implementation of state renewable policies is one way UCS actively works toward these ends. UCS is interested in promoting the public interest, which is served by a reliable and efficient regional electricity market broadly defined. UCS is submitting the following comments in this proceeding because it represents interests that will be directly affected by the outcome of this proceeding.

B. MASSACHUSETTS PUBLIC INTEREST RESEARCH GROUP

The Massachusetts Public Interest Research Group ("MASSPIRG") is a statewide public interest organization with 55,000 members across the Commonwealth. MASSPIRG's mission to deliver persistent, result-oriented public interest activism that protects our environment, encourages a fair, sustainable economy, and fosters responsive democratic government. Since 1972, MASSPIRG has worked on a range of consumer and environmental issues including energy policy matters. In light of our mission and our many members, including thousands who are in Massachusetts Electric's service territory, who will be directly affected by the decisions made pursuant to this proceeding we represent a perspective that should be represented. MASSPIRG moves to comment in this investigation because it represents interests that will be directly affected by the outcome of this proceeding.

C. MASSACHUSETTS ENERGY CONSUMERS ALLIANCE

The Massachusetts Energy Consumers Alliance ("Mass Energy") is a 23 year-old nonprofit organization with a dual mission of energy affordability and environmental sustainability. Mass Energy currently operates several energy programs in Massachusetts and Rhode Island in partnership with People's Power and Light. Mass Energy's heating oil buyers' group serves over 7000 households, saving members 15-30 cents per gallon. Its green power program serves over 2000 customers in the service area of National Grid (Mass. Electric, Nantucket Electric, and Narragansett Electric). In addition to working directly in the market, Mass Energy continues to advocate for policies that are pro-consumer and pro-environment. Visit www.massenergy.com.

D. CONSERVATION LAW FOUNDATION

The Conservation Law Foundation works to solve the environmental problems that threaten the people, natural resources and communities of New England. CLF's advocates use law, economics and science to design and implement strategies that conserve natural resources, protect public health, and promote vital communities in our region. Founded in 1966, CLF is a nonprofit, member-supported organization. It has regional advocacy centers in Boston; Montpelier, Vermont; Concord, New Hampshire; Providence, Rhode Island and Rockland, Maine. CLF maintains an extensive website at www.clf.org. CLF was deeply involved in the restructuring of the electricity sector in Massachusetts and has long advocated for continued improvement in air quality from that sector. Most recently, CLF has focused on the threat of global warming and the need to deploy large-scale renewable energy sources in order to address this threat. These concerns are implicated by the issues under review in this proceeding.

E. CLEAN WATER ACTION ALLIANCE OF MASSACHUETTS

Clean Water Action is a national citizens' organization working for clean, safe and affordable

water, prevention of health-threatening pollution, creation of environmentally safe jobs and businesses, and empowerment of people to make democracy work. Clean Water Action organizes strong grassroots groups, coalitions, and campaigns to protect our environment, health, economic well-being, and community quality of life. Clean Water Action is active is 25 states and has 700,000 members nationally. We represent 40,000 members in Massachusetts and have offices in Boston and Northampton, MA. One of Clean Water Action's major issue areas is the environmental impacts of electric power generation.

Executive Summary

We appreciate the DTE opening this proceeding. Given that standard offer is ending soon and a very high percentage of residential and small commercial and industrial (C&I) customers will be on default service, we agree with the Department that it is critical to examine the procurement practices and requirements used for default service. In a system where policy-makers have chosen to encourage competitive suppliers to enter the market for these customers, it should be noted that they will be more likely to do so when power procurement is performed in a way that achieves diversity and price stability. It is essential for the DTE to proactively seek improvements in the procurement process that ensure ratepayers receive cost effective and reliable electric service.

Massachusetts residents face serious risks as a result of our current electricity procurement policies. The present path risks increased price volatility, greater dependence on natural gas, negative public health impacts from continued dependence on polluting fuel sources, excessive costs resulting from imprudent renewable energy procurement practices, and failure to meet

legislatively-mandated targets for increasing contribution of renewable energy generation (Renewable Portfolio Standard, or RPS). The present path has missed opportunities to achieve more stable and manageable electricity prices and better protect public health and the environment. Continuing on the present path will make a bad situation worse for small electricity customers and all Massachusetts residents.

It is our position that the DTE's current policies regarding default service should be modified. In particular, we are concerned about the lack of broader portfolio management practices and ask that the DTE consider policy changes that would require default service providers to employ such practices in default service procurement.

We believe that the Department should modify its default service procurement policies to reflect the following best practices:

- Default service providers should increase the number of solicitations from two to at least five.
- Default service should include a small fraction of short term (spot) contracts, at least 10-15% of load through long-term contracts (at least 10 years), with the remainder procured through a series of laddered medium term (3-5 year) contracts.
- A significant portion of the long-term segment of default service procurement should come from renewable energy generation. At a minimum, the renewable portion of the long-term segment should meet the state's renewable portfolio standard requirement.

We believe strongly that central to whatever changes DTE adopts for default service procurement, procurement policies must ensure that investment in energy efficiency is maximized. Greater economic and environmental benefits are gained by doing so than by focusing only on how default service providers procure power. In addition, default service procurement policy should not create any structural barriers to the ability of competitive suppliers or municipal aggregators to participate in the market or customers to move easily from default service to a municipal aggregator or competitive supplier.

While the matters of energy efficiency and the role of competitive suppliers and municipal aggregators are of great importance to us, our comments here focus mainly on the importance of including long-term contracts for renewable energy procurement. We also provide brief comments on some of the other issues raised by the Department.

I. Background

Massachusetts is falling short in its efforts to realize the potential for renewable energy as a strategy to reduce electricity price volatility, lower electricity prices, reduce pollution, and increase our energy independence. We believe that realizing this potential will require a more cohesive strategy among and between the relevant state agencies responsible for promoting the state's energy policy and those responsible for holding electricity suppliers accountable for meeting the state's RPS targets in the most cost-effective way for consumers.

The most important action the state can take is to demonstrate to electricity suppliers its commitment to ensure that the Commonwealth's RPS policy is implemented cost-effectively and fairly. We believe Massachusetts regulators must recognize their critical role in carrying out the provisions of this law. In particular, the Department must take proactive responsibility to ensure that suppliers are using the most cost-effective RPS compliance strategies for default service customers. It has become apparent that default service providers are not procuring renewable energy sufficient to meet their RPS obligations, and will fall short in the near future. Simply making alternative compliance payments to the Massachusetts Technology Collaborative is very unlikely to be the most cost-effective compliance strategy for providing renewable energy to default service customers.

Indeed, the current system is arguably already leading to an inefficient, inequitable, and rather bizarre outcome. Default service customers are paying needlessly high costs for RPS compliance through short-term Renewable Energy Certificate (REC) purchases or Alternative Compliance Payments (ACP), while municipal utility customers—who are exempt from the RPS—reap the benefits of lower prices and long-term price stability from renewable energy generation.

In the remainder of these comments, we describe the specific problems we see, and make recommendations for how to avoid these problems.

II. The Department should require default service providers to increase both the number and the length of procurement contracts.

It is our view that when considering policy changes, DTE should focus on how to provide stable electricity prices at reasonable cost for the large group of customers that will be on default service. Demand side measures that lead to increased energy efficiency will contribute significantly to stable, reasonable costs. In addition, we believe the Department should consider changes to energy procurement policy to achieve these important objectives.

Today, there is a lack of diversity in the contract terms currently in use by default service providers. Two default service contracts of 12 months each staggered by six months provide inadequate diversity: there is no medium or long-term component to the current portfolio of default service supply contracts. Default service providers should be required to include medium- and long-term components of default service procurement to dampen the volatility that consumers would face otherwise, and provide a component of long-term price stability.

Portfolio management is a commonly used approach in the world of financial investing, where the concept is applied as a method for managing risks and producing higher long run returns (Rochelle, 2004). Such portfolio management is practiced based on the principle that diversification of investments allows the investor to achieve an acceptable balance between risk and return. In order to achieve such a balance, any portfolio must have some component of investments with low volatility, even if those particular investments do not present the same potential return as some of the other investment in the portfolio. Prior to deregulation, electricity procurement portfolios were managed to achieve the goals of balancing long run cost and risk

through a mix of contracts with different terms, from a variety of generating technologies and fuels (Harrington, 2002).

Many experts on electricity market structure have concluded that policy-makers need to return to portfolio management that includes long-term contracts in order to reduce customers' exposure to the volatility of short-term markets. For example, in a 2002 report, authors from The Regulatory Assistance Project point to the lack of consumer information and retail choice for all but the largest customers, and the presence of standard offer service as conditions that have forced the majority of customers into the short term energy market (Harrington, 2002).

The National Commission on Energy Policy (NCEP)[1] views the current model of regulated default service as not addressing "either the real relationships between wholesale and retail markets or the complex issues involved in resource planning" (NCEP, 2004). In its December 2004 report, the NECP concluded that default service portfolios should include short-, medium-, and long-term contracts in order to provide "economical and reliable electricity." The NCEP also recommended that the portion of the load covered by long-term contracts should equal that share of the load that has the lowest likelihood of migrating to a municipal aggregator or competitive supplier.

Another source of price risk and volatility is the increasing lack of diversity in New England's and the country's electric generating portfolio. Our region's natural gas fired generation is predicted to approach 50 percent by 2010, up from 16 percent in 1997. Natural gas combined

cycle plants made up 96 percent of all the generating capacity added between 1999 and 2002. The share of generating capacity fueled by natural gas is projected to double by 2025 (EIA 2003). This will lead to increased competition for dwindling North American supplies, as well as higher, more volatile prices. Both regionally and nationally, there is widespread agreement that this trend is a serious problem will worsen in the future.

In two recent studies, Synapse Energy Economics concluded that competitive electricity markets need more diversity (Biewald, 2003 and Rochelle, 2004). We agree with the conclusions of the Synapse analysts' conclusion that portfolios including contracts of differing lengths, from different technology types, will achieve a portfolio with more price stability and lower costs. Synapse found that using the "laddering" approach, either through contracts of the same length with staggered starting dates or contracts that commence at the same time but with differing terms, would reduce overall portfolio risk. Of particular importance were inclusion of fixed price firm contracts in the portfolio, because they have zero risk of price volatility.

We agree that a portfolio management approach is in the best interest of the default service ratepayer because it:

- Achieves reasonable and stable prices while tracking long-term market trends;
- Decreases consumer exposure to:
    - wholesale market price volatility,
    - fuel prices and supply volatility, and
    - peak costs associated with extreme events;

[1] See http://www.energycommission.org/ for more information about the Commission, which includes members such as Co-Chair John Rowe, Ralph Cavanagh of NRDC, Susan Tierney of The Analysis Group, and R. James

- May also lead to lower overall power prices; and
- Reduces the role that price volatility plays as a barrier to entry for competitive suppliers.

Because of the lack of fuel and contract diversity, default service customers are being increasingly exposed to higher, more volatile prices. Over-reliance on too few short-term contracts will unnecessarily shift the burden of rising and increasingly volatile prices onto all residential and small C&I customers. On their own, default service providers are not taking the necessary steps to address the implications that this lack of diversity in contract terms and fuel supply has for customers. Therefore DTE must consider policy changes to default service procurement that is based on a portfolio management approach.

III. The Department should require default service providers to comply with RPS requirements through long-term contracts.

The requirement that default service providers include long-term energy purchases as a component of their procurement portfolio would address another significant problem. Default service providers (and standard offer providers) have been complying with the state's RPS requirements through short-term purchases of renewable energy certificates (RECs) or, possibly, the combined purchase of both renewable energy and RECs. This has created conditions that prevent renewable energy generation from being developed in the region.

As described in a study by the Massachusetts Technology Collaborative,

---

Woolsey, former Director of the Central Intelligence Agency.

> "…renewable projects moving through the planning and permitting stages of development are having difficulty securing necessary financing for construction. Thus, fewer renewables have been developed in New England than expected. The primary reason is the lack of creditworthy entities in the region that are willing to enter into long-term agreements for the electric energy and RECs. The result is revenue uncertainty, which when coupled with the inherent risks of the New England REC market, presents market price risks which are very difficult for debt and equity project investors to assume" (Cory, 2004).

The supply of RECs is tight relative to demand, and as a result, RECs needed for the 2004 compliance period are trading at prices that approach the alternative compliance payment of $51.41 per MWh (Evolution Markets, 2005).

We also expect that some LSEs will rely on the ACP for compliance starting in the 2004 compliance year. This means that consumers are paying the highest possible price for RPS compliance and to some extent, since RPS compliance costs are going to the ACP, ratepayer money is not going to renewable energy developers who would be able to increase renewable generation if they had long-term contracts. This means consumers are missing out on many of the benefits of the significant benefits renewable energy can provide.

A 2004 report from the Lawrence Berkeley Lab (LBL) focused on the role that renewable energy can play in hedging the risks associated with using natural gas to generate electricity. Natural gas prices are rising and increasingly volatile, but renewable energy resources are immune to

fuel price risks because they can be sold under long-term fixed price contracts. When determining whether this is cost effective, buyers or their regulators need to compare the cost of contracts with gas generators that are hedged so that the price risk is comparable. Development of renewable energy, as well as increased energy efficiency, put downward pressure on future natural gas prices, providing benefits to all sectors of the economy. The authors conclude that renewable energy has a hedge value, plus the incremental value of lowering gas prices and credit risk and providing long-term price stability (Bolinger, 2004).

In another report from LBL in 2005, the authors show that renewable energy and energy efficiency can displace gas-fired electricity generation, reducing gas demand and putting downward pressure on natural gas prices and bills (Wiser, 2005a). The report finds that existing modeling studies generally show that each 1 percent reduction in natural gas demand nationwide is likely to lead to a long-term wellhead price reduction of 0.8 percent to 2 percent, with some studies showing more significant reductions. This means that renewable energy provides consumer gas savings conservatively estimated to be equivalent to at least $10 to $20 for each megawatt-hour of incremental renewable generation. From the analysis done for the 2005 LBL report, the net present value to New England consumers as a result of the state RPS programs in the region is estimated to be between $34 and $85 million. New England's RPS policies would generate national consumer benefits of between $625 million and $1.56 billion (Wiser, 2005b).

There are several examples, both in the region and elsewhere, of regulators and legislatures deciding that long term purchases of renewable energy are in the best interest of customers. The recently passed RPS law in Rhode Island requires the state's Public Utility Commission to

develop standards for utility contracts and procurement plans for renewable energy resources in order to ensure goals explicitly including stabilizing long-term energy prices and enhancing environmental quality. The law also authorized rate recovery by electric utility distribution companies of all *prudently incurred* incremental costs of compliance.

In Connecticut, three utilities will be required to purchase renewable energy from 100 MW worth of generation, a substantial proportion of RPS Class 1 requirement. These purchases will be through long-term contracts of at least 10 years. The new RPS in New York, which relies on central procurement for RPS compliance, will buy renewable energy through long-term contracts of at least 10 years. Other state RPS programs with long-term purchase requirements include California, Colorado, Nevada, and New Mexico.

The Massachusetts Technology Collaborative, as the administrator of the state's Renewable Energy Trust fund, has developed a program to create contractual mechanisms that provide long-term purchase agreements for RECs. This program, the Massachusetts Green Power Partnership (MGPP), is described in a paper developed by MTC staff last year. In the paper, the authors conclude that relative to near-term market prices, long-term purchase deals for RECs are considerably less expensive. Using a competitive solicitation, the MGPP received bids from renewable energy project developers for 10-year RECs contracts at prices of approximately $25 per MWh. When compared with the current RECs prices of around $50 per MWh, it is obvious that significant savings are available through long-term contracts. While this demonstration is revealing as to the benefits of long-term contracts for RECs, the MGPP program will only cover a fraction of the RECs required to meet the state's RPS compliance requirements.

Recently, we learned of an example of a beneficial long-term contract for renewable energy. The Massachusetts Municipal Wholesale Electric Company (MMWEC) announced that it will purchase the electrical output of the proposed Berkshire Wind project for 22 years. In making this commitment, MMWEC cited benefits such as the low cost, the contribution to fuel diversity, and the role in risk management of energy purchases. Throughout the contract, MMWEC will pay 3.65 cents per kWh instead of the current 5 cents market price. Based on the agreement with MMWEC, the project developers can now go for financing (Marcisz, 2004).

The RECs from the Berkshire Wind project are also under separate long-term agreement. The Rhode Island Renewable Energy Fund and a wholesale marketer with RPS compliance obligations are buying RECs from the project's first five years of operation, and the RECs from operating years 6-10 are under agreement with the MTC through the MGPP. This combination of contracts means that while Massachusetts ratepayers will benefit from the RECs contracts under MGPP, they are losing out on the benefits that the long-term energy purchase is providing to MMWEC's customers.

From the results of the MGPP program focused on RECs and the power purchase agreement between MMWEC and Berkshire Wind, it is clear that the greatest benefits can be achieved through long-term bundled purchases of RECs and renewable energy. What is more, the entities that are responsible for procuring RECs and renewable energy for Massachusetts customers are competing with buyers like MMWEC and the utilities in Connecticut, Rhode Island, and New York. These buyers will mostly be using a competitive bidding process, and are certain to get

better RECs and energy prices for this portion of their portfolios because they will be entering into long-term agreements with renewable generators. However, unless DTE makes specific policy changes, Massachusetts consumers will be left behind, bound to pay too much for RECs and miss out on the benefits that long term procurement of renewable energy can provide.

IV. Responses to other questions posed by DTE

In its request for comments, the Department asks whether default service procurement should use an auction or a request for proposals (RFP). While we do not present a recommendation for an approach to procurement for the segment of default service purchased under spot, short- or medium-term contracts, we recommend that the Department consider the use of an RFP to solicit offers for long-term contracts, particularly long-term contracts with renewable suppliers. At least in the current state of the market for renewable energy, with little if any long-term liquidity or price discovery, an RFP approach is likely to result in lower ratepayer costs.

In its request, the Department also asked whether default service should be done on a statewide basis. Again, we do not present a recommendation, other then for the renewable segment of default service procurement. We are in favor of replacing the current model where individual load serving entities (regulated utilities and competitive suppliers) with RPS obligations individually procure RECs or pay into the ACP. While there are several approaches that are acceptable and would be significant improvements on the current situation, we recommend that DTE consider a requirement that either default service providers use long-term contracts to achieve compliance with the RPS as described previously or a statewide long-term procurement

model for compliance with the state's renewable standard. While we see the advantages of either approach, we urge DTE to consider both of them.

Statewide procurement of renewable energy certificates for state renewable standard compliance under long-term contracts has been included in the New York program. If done correctly, statewide procurement is preferable to individual procurement because it makes the commitment to long-term RECs contracts, which individual default service providers are not currently doing, and thereby ensuring financing of new renewable generation. As described above, long-term contracts are essential to the development of new renewable facilities. Statewide procurement provides an economy of scale, which combined with long-term contracts, is more cost effective for all customers, especially those who get their electricity from smaller suppliers.

Finally, the Department asked whether default service procurement policies could be changed without creating problems associated with customer migration. We believe that the answer is yes. The inclusion of a segment of default service procurement acquired in spot market or short-term contracts, as well as through laddered medium term contracts means that the default service provider has several sources of flexibility. The amount of power procured can be quickly adjusted to match changes in load as customers migrate. This approach also addresses the risk that procurement of RECs (or preferably, bundled RECs and renewable energy) for RPS compliance because the rate of customer migration away from default service providers is unlikely to match the rate of annual increase in the RPS target. While it may be preferable for default service providers to comply with RPS targets through bundled long-term purchases of RECs and renewable energy, taking a long-term position in certificates is not necessarily risky,

even with the potential for consumer migration. The RECs can be re-sold to whoever has the RPS compliance obligation, even if the original buyer's compliance obligation may vary over time.

VIII. Communications

All communications, correspondence, and documents related to this proceeding should be directed to the following people.

Deborah Donovan, Clean Energy Program Research Coordinator

Union of Concerned Scientists

Two Brattle Square

Cambridge, MA 02238

(617) 547-5552

(617) 864-9405 (fax)

Frank Gorke, Energy Advocate

Massachusetts Public Interest Research Group

44 Winter Street – 4th Floor

Boston, MA 02108

(617) 747-4316

(617) 292-8057 (fax)

Larry Chretien, Executive Director

Massachusetts Energy Consumers Alliance

670 Centre Street

Boston, MA 02130

(617) 524-3950

(617) 524-0776 (fax)

Cindy Luppi, Organizing Director

Clean Water Action Alliance of Massachusetts

36 Bromfield Street, Suite 204

Boston, MA 02108

(617) 338-8131

(617) 338-6449 (fax)

Seth Kaplan, Senior Attorney/Director Clean Energy & Climate Change Program

Conservation Law Foundation

62 Summer Street

Boston, MA 02110

(617) 350-0990

(617) 350-4030 (fax)

Bibliography

Biewald, B., T. Woolf, A. Rochelle, and W. Steinhurst. 2003. *Risk Management of the Electricity Portfolio*. Regulatory Assistance Project Issuesletter, December 2003.

Bollinger, M., R. Wyser, and W. Golove. 2003. *Accounting for Fuel Price Risk: Using Forward Natural Gas Prices Instead of Gas Price Forecasts to Compare Renewable to Natural Gas-Fired Generation*. Environmental Energy Technologies Division, Lawrence Berkeley National Laboratory. August 2003.

Cory, K, N. Bogen, and B. Sheingold. 2004. *Long Term Revenue Support to Help Developers Secure Project Financing*. Proceedings from Global Windpower 2004 Conference and Exhibition, March 2004.

Energy Information Administration (EIA). 2003. Annual Energy Outlook 2003. DOE/EIA-0383(2003), January 2003.

Evolution Markets. 2005. Monthly Market Update, REC Markets, December 2004. Downloaded from http://www.evomarkets.com/assets/mmu/mmu_rec_dec_04.pdf

Harrington, C., et al. 2002. Portfolio Management: Protecting Customers in an Electric Market That Isn't Working Very Well. Regulatory Assistance Project, through the Hewlett Foundation Energy Series. July 2002.

Levitan, R. 2004. *Outlook on Natural Gas and LNG*. Presentation before the Massachusetts Restructuring Roundtable. November 19, 2004.

Marcisz, C. 2004. *Wind Farm Signs Deal to Sell its Electricity*. Berkshire Eagle, December 8, 2004.

National Commission on Energy Policy. 2004. *Ending the Energy Stalemate: A Bipartisan Strategy to Meet America's Energy Challenges*. December, 2004.

Rochelle, A. and W. Steinhurst. 2004. *Best Practices in Procurement of Default Electric Service: A Portfolio Management Approach*. Electricity Journal, October 2004.

Wiser, R., M Bollinger, and M. St. Clair. 2005a. Easing the Natural Gas Crisis: Reducing Natural Gas Prices through Increased Deployment of Renewable Energy and Energy Efficiency. Environmental Energy Technologies Division, Lawrence Berkeley National Laboratory. January, 2005.

Wiser, R. 2005b. Personal communication. January 2005.